

Application No. 09/971,991
Docket No. 2557-000043/US

1. (Amended) An input buffer circuit comprising:
 - a first inverting switch connected to a first input voltage and outputting a self bias signal;
 - a second inverting switch connected to a second input voltage and outputting an output signal;
 - a gain control unit having a feedback loop for gain control and responding to the self bias signal and the output signal.

4. (Amended) An input buffer circuit comprising:
 - a first inverting switch connected to a first input voltage and outputting a self bias signal;
 - a second inverting switch connected to a second input voltage and outputting an output signal;
 - a gain control unit having a feedback loop for gain control responsive to the self bias signal and the output signal; and
 - a current controlling circuit that supplies current to the first inverting switch, the second inverting switch and the gain control unit and sinks current from the first inverting switch, the second inverting switch and the gain control unit, the current controlling circuit responding to the self bias signal.

8. (Amended) An input buffer circuit comprising:
 - a first inverting switch connected to a first input voltage and outputting a self bias signal;
 - a second inverting switch connected to a second input voltage and outputting an output signal;

Application No. 09/971,991
Docket No. 2557-000043/US

a gain control unit having a feedback loop for gain control responsive to the self bias
signal and the output signal; and
a swing width control circuit connected to a feedback signal that is inverted by the output
signal.